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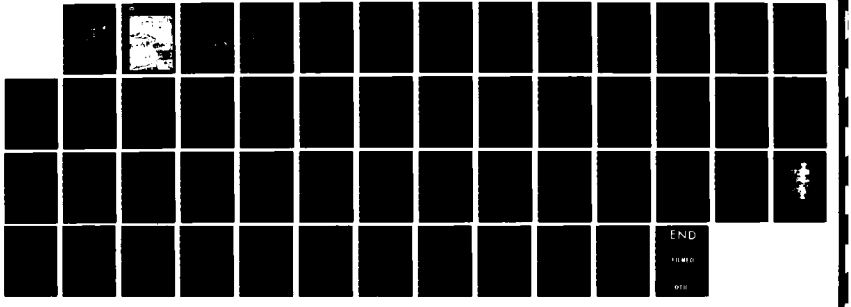

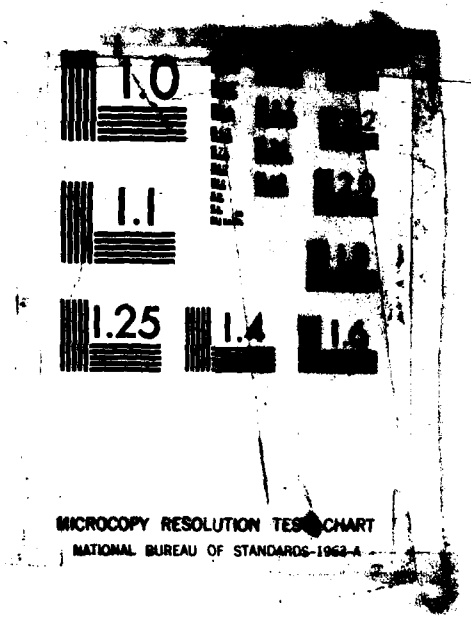
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(Continued)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

An intensive cultural resources survey with site evaluation was conducted within the Fourche Creek Flood Control Project Area, Pulaski County, Arkansas. The area examined consisted of a 4.45 mile reach of Fourche Creek, a 5.54 mile reach of Rock Creek, and a 1.84 mile reach of Grassy Flat Creek. The project consists of a corridor approximately 25 m either side of the present banks of these water courses and three designated material disposal areas consisting of approximately 100 acres total. Two sites were discovered. (Continued)

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Survey

20. ABSTRACT (Continued)

Site 3PU290 was an isolated find and site 3PU291 was a recent, 20th Century farm. Neither site was judged to be eligible for nomination to the National Register of Historic Places.

Archeological Assessments Report No. 35

An Intensive Cultural Resources Survey, Fourche Creek Flood Control Project, Pulaski County, Arkansas

by

W. J. Bennett, Jr.
Michael Swanda
Beverly Watkins

Submitted
to the
U. S. Army Corps of Engineers
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ABSTRACT

An intensive cultural resources survey with site evaluation was conducted within the Fourche Creek Flood Control Project Area, Pulaski County, Arkansas. The area examined consisted of a 4.45 mile reach of Fourche Creek, a 5.54 mile reach of Rock Creek, and a 1.84 mile reach of Grassy Flat Creek. The project area consists of a corridor approximately 25 m either side of the present banks of these water courses and three designated material disposal areas consisting of approximately 100 acres total. Two sites were discovered. Site 3PU290 was an isolated find and site 3PU291 was a recent, 20th Century farm. Neither site was judged to be eligible for nomination to the National Register of Historic Places.

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Project Authorization

The United States Army Engineering District, Little Rock (USAED, Little Rock) has identified a variety of flood hazard reduction activities within the Fourche Creek Flood Control Project Area, Pulaski County, Arkansas. As part of its responsibility for the management of such cultural resources which might be located in the project area the USAED, Little Rock, contracted with Archeological Assessments, Inc., Nashville, Arkansas, to perform an intensive cultural resources survey with site evaluation within those locations to be impacted by these activities.

This action was taken under the authority of and in compliance with the National Environmental Policy Act of 1969 (Public Law 91-190), the National Historic Preservation Act of 1966 (Public Law 89-665), Executive Order 11593 (Protection and Enhancement of the Cultural Environment), the Archeological and Historic Preservation Act of 1974 (Public Law 93-291) and other authorities. Work was authorized by Contract Number DACW03-84-0007, Order 0001.

Project Background and Project Area Location

The flood improvement activities described below will be located along three streams; Fourche Creek, Rock Creek, and Grassy Flat Creek which together constitute the project area. The locations of these three segments are shown in Figures 1, 2, and 3. In general, project activities are expected to impact the stream channels in the designated reaches and a zone no greater than 25 m on either side of the present channel edge.

Fourche Creek (Figure 1). Flood improvements stretch from mile 0.0 to mile 4.45. From mile 0.0 to Lindsey Road (mile 1.30) channel clearing, bank grading, and riprap will be proposed. Channel clearing will be conducted from Lindsey Road (mile 1.30) to mile 4.45. Material will be deposited in an approximately 40 acre area located between Lindsey Road and Fourche Dam Pike. There will be three possible bridge alterations.

Rock Creek (Figure 2). Improvements will be made from mile 0.2 to 5.74. From mile 0.2 to mile 1.4 channel clearing will be conducted. From mile 1.4 to mile 4.37, the channel will be excavated to a 90' bottom width. From mile 4.37 to mile 5.74 channel clearing will be conducted. There are three possible bridge alternations. In addition to impact upon the channel area the project will deposit material in three separate areas covering a total of approximately 60 acres.

Grassy Flat Creek (Figure 3). Flood improvements stretch from mile 0.0 to mile 1.84. The channel bottom will be slightly deepened with 1 on 3 slopes. There are no designated material disposal areas.

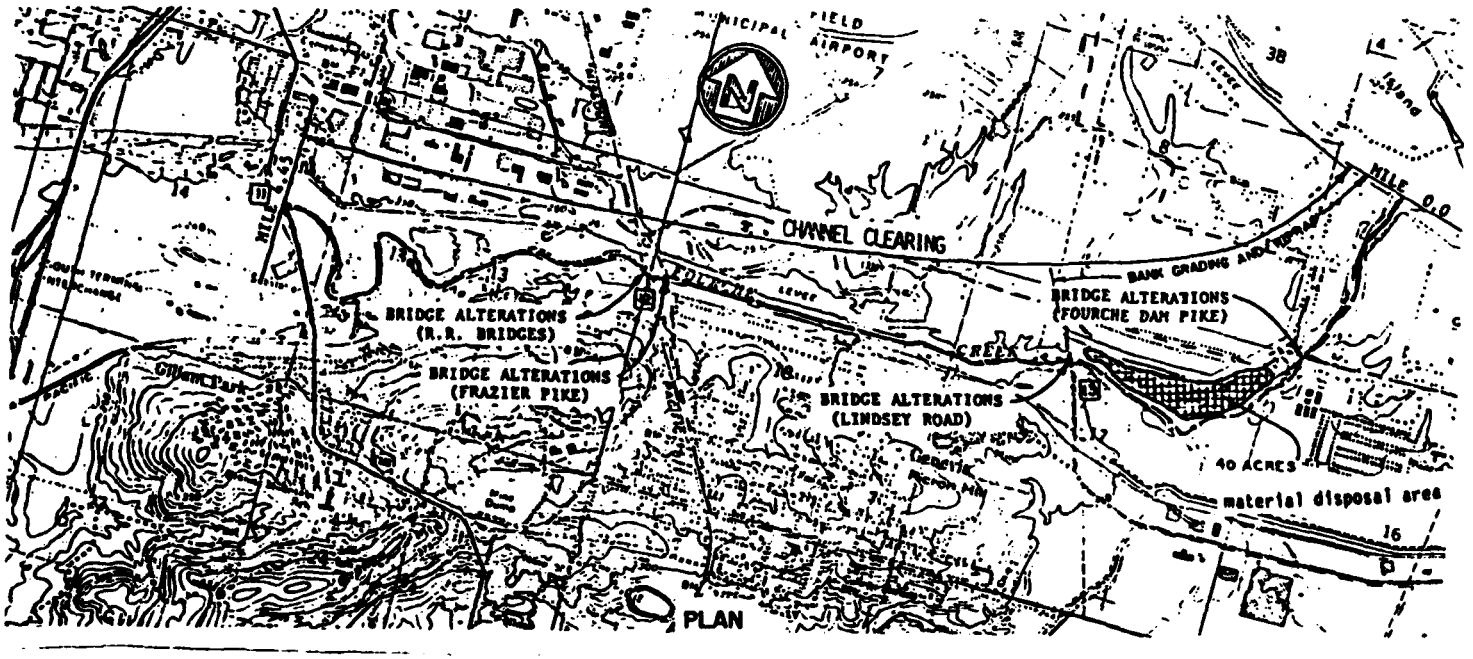

Figure 1. Project Area: Fourche Creek segment (scale 4.3 cm = 1 mile)

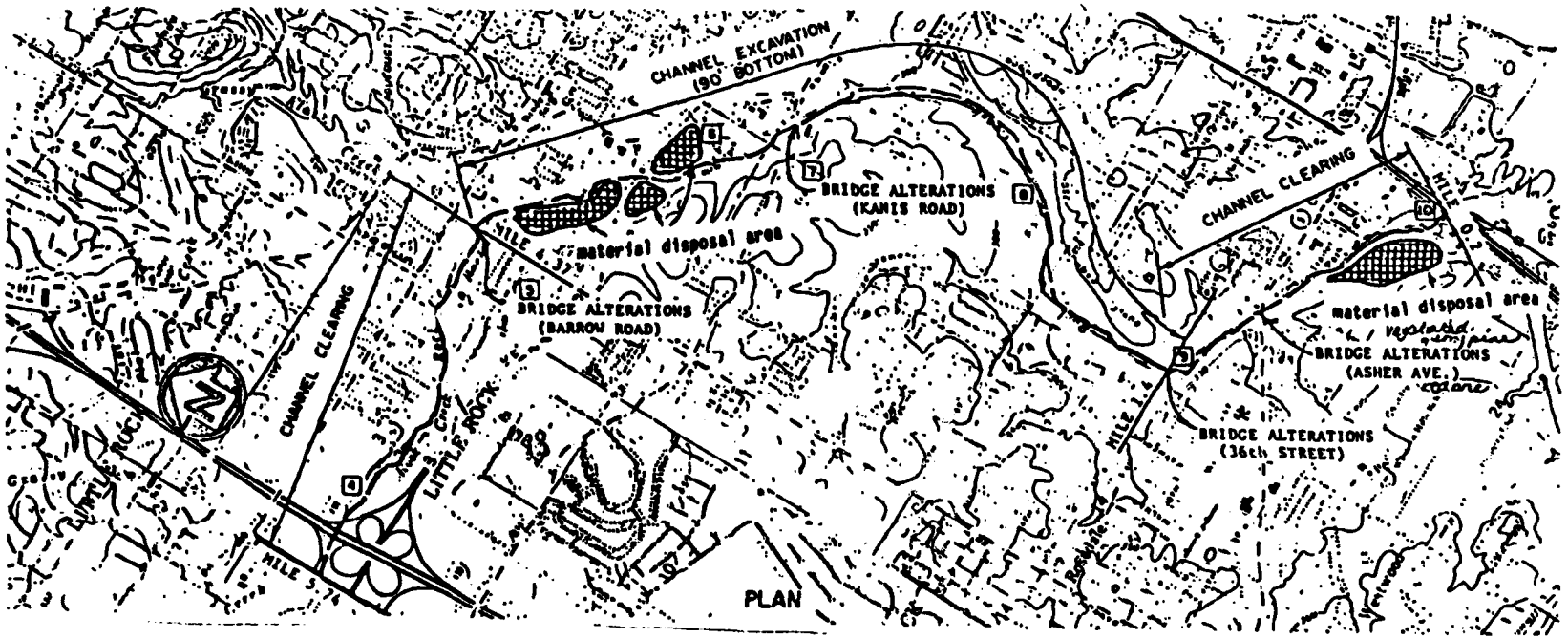

Figure 2. Project Area: Rock Creek segment (scale 4.3 cm = 1 mile)

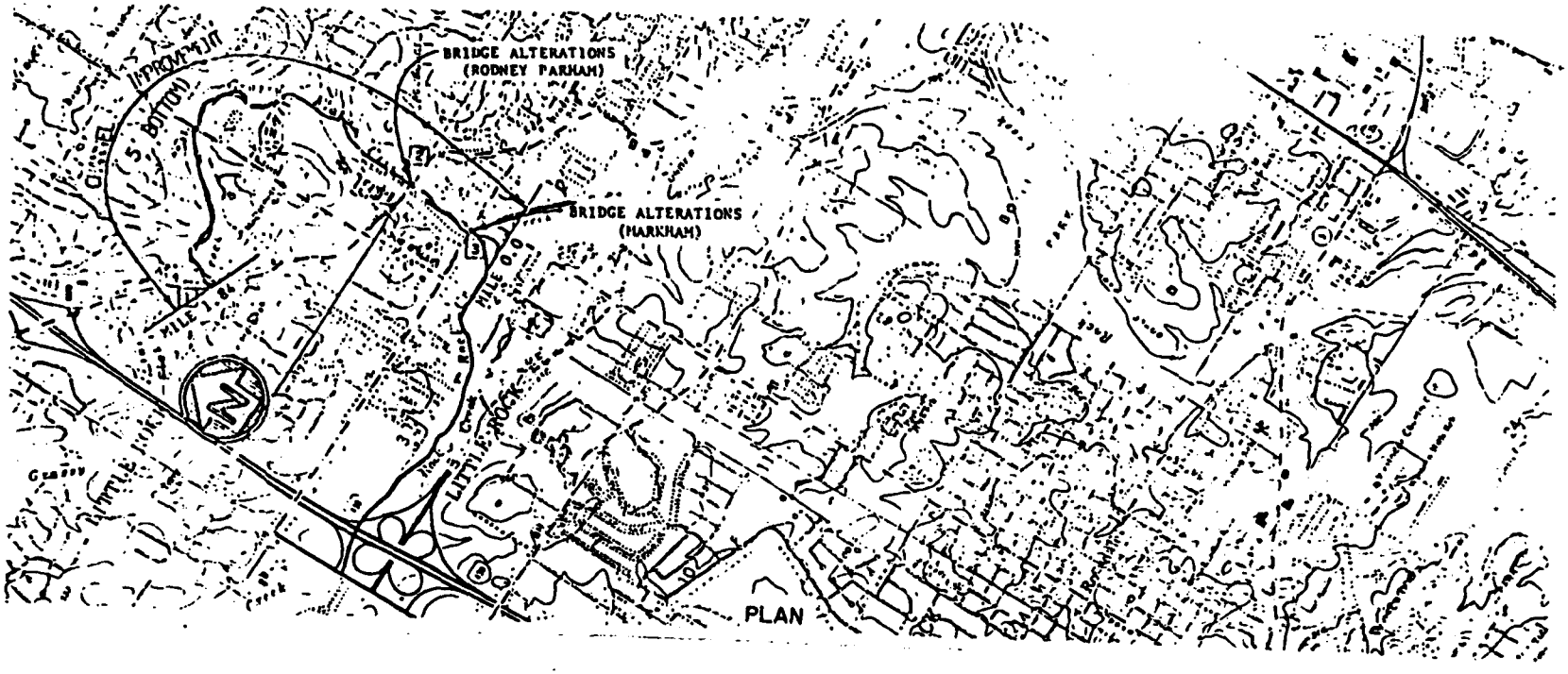

Figure 3. Project Area: Grassy Flat Creek segment (scale 4.3 cm = 1 mile)

Project Goals and Orientation

The stated goal of this effort was to locate, identify and evaluate those cultural resources in the project area which might be affected by the project.

To this end an intensive cultural resources survey was designed which included a background and literature search, a geomorphological analysis of the project area, field examination of the area, and site evaluation. The following pages detail the various aspects of this program and its findings.

Acknowledgements

Most of the background research and records search for the project area was conducted by Michael Swanda. Beverly Watkins assisted in the records search and wrote the historical background sections for the report. Michael Swanda supervised the field work and identified the recovered artifacts. The artifacts were prepared for curation by Leslie Raymer under the supervision of Anne Frances Gettys. W. J. Bennett, Jr. constructed the report in its present form.

A special word of thanks is extended to Lawson Smith, Waterways Experiment Station, who provided the excellent work on the area's geomorphology on such a short notice. Thanks are also due to Robert Dunn, archeologist for the Little Rock District, who entered this project in mid-stream but kindly afforded us his counsel and encouragement.

INVESTIGATIONS

Records Search and Literature Review

Records Search. A records search was conducted prior to the field investigations. Information concerning previously recorded archeological sites and historic standing structures that might be present within the project boundaries was obtained from several sources. This work was done principally by Michael Swanda with assistance from Beverly Watkins.

The sources consulted were the records of the Arkansas Archeological Survey, Fayetteville, Arkansas; the list of historic properties on record in the Office of the Arkansas Historic Preservation Program, Little Rock; and the information concerning nineteenth century historic sites present within the General Land Office maps on file with the Arkansas History Commission, Little Rock, and surveyor's notes on file with the Arkansas State Land Office, Little Rock.

Discussions regarding cultural resources within the project area were also held with Burney McClurkan and John Miller, archeologists for the Arkansas State Highway and Transportation Department, as well as with Leslie C. Stewart-Abernathy, Jr., Arkansas Archeological Survey, Pine Bluff Station. Attempts to contact other avocational archeologists in the area were unsuccessful.

Literature Review. A review of literature pertinent to the archeological and historical resources of the project area and region was conducted by Michael Swanda, Beverly Watkins, and W. J. Bennett, Jr.

Geomorphological Analysis

An examination of the topographic sheets and soils maps of the area indicated that the project area was situated within a highly dynamic environmental context. The floodplains of Rock Creek, Grassy Flat Creek, and Fourche Creek have been subjected to a diverse set of natural processes and modern disturbances which no doubt exercised strong constraints on past human use of the area and our present ability to discover the archeological record created by this past use. It was therefore considered imperative to gain at least some reconnaissance level data about the natural processes at work in the project area and to form some estimation of their effect on possible past human use of the area as well as their effects upon the archeological record. Such an analysis would give crucial guidance to the field efforts. Further, without such an understanding it would be difficult to interpret the results of our field work.

In order to obtain this information the US Army Engineer District, Little Rock, requested that Dr. Lawson M. Smith, US Army Engineers, Waterways Experiment Station, Vicksburg, Mississippi, provide the project with a brief

geomorphic analysis of the Fourche Creek Flood Control Project Area. This was provided in a report submitted to the Little Rock District (Smith 1984).

The purpose of this brief analysis was to provide geomorphological data to be used in support of current cultural resource management activities, specificially the intensive cultural resources survey and site evaluation project. Particular emphasis was placed on the definition of geomorphic features and landforms and their processes of development as they relate to past human use of the area and the impact of the geomorphic phenomena (features, landforms, processes) on current efforts to locate and evaluate the cultural resources of the project area. The geomorphological analysis was conducted in three project reaches, including parts of Fourche Creek, Rock Creek, and Grassy Flat Creek.

Data used in this analysis was derived from 1:24,000 topographic quadrangles and uncontrolled mosaics of aerial photography taken during the years 1940, 1950, 1955, 1961, 1967, and 1975. Surficial soils data were taken from the Soil Survey Bulletin of Pulaski County, Arkansas (Haley, Buckner and Festervand 1975).

It was understood that while this level of analysis would be suitable as a general guide for cultural resource surveys in the project area, it was not intended to serve as a subsititute for a field reconnaissance to delineate and describe all of the geomorphic phenomena in the project area. The scale of the topographic maps and aerial photographs precluded the delineation of some geomorphic phenomena which can be observed in the field.

Field Work

Pedestrian Survey. Most of the field work was conducted in two segments from August 28 to September 25, 1984. Michael Swanda directed the field investigations assisted by Barbara Swanda and John Miller. W. J. Bennett, Jr., and Robert Dunn, Little Rock District archeologist participated briefly in field examinations. Because of heavy vegetation within a portion of the Fourche Creek reach the Little Rock District requested that a segment be re-examined when the vegetation was less dense. This was accomplished on January 12, 1985, when the area was examined by John Miller.

The project area consisted of a total of 11.83 miles of channel for the Fourche Creek, Rock Creek, and Grassy Flat Creek reaches. Both sides of the channel were examined making a combined total of approximately 24 linear miles subjected to intensive examination. The project area was examined by walking two parallel transects on both sides of the creek channel. These transects were spaced 10 - 20 m apart. Shovel tests, 30 cm in diameter, were excavated along each transect at 25 m intervals. These shovel tests ranged in depth from 30 to 50 cm. The creek bank and other exposed ground surfaces were carefully inspected.

Efforts were intensified in areas where the geomorphological analysis indicated the possible existence of land formations thought to be particularly amenable as locations for archeological sites. These areas were shovel tested at 10 m intervals along several parallel transects. In addition, the creek bank was visually examined for archeological deposits within each of these specific areas.

A total of approximately 100 acres of proposed material disposal area was investigated by excavating shovel tests at 20-25 m intervals along parallel transects spaced 20 m apart.

In order to facilitate record keeping the project area was divided into 8 arbitrarily defined Survey Units. These Survey Units were defined arbitrarily, usually on the basis of ease of access and record keeping. Prior to field work the maps generated by the geomorphological analysis were incorporated with the Survey Unit Forms. Observations about field conditions, land use, terrain, vegetation, and cultural resources were recorded on Survey Unit Forms.

RESULTS

Background and Literature Search

Regional Archeological Context. The project area is situated in the Middle Arkansas River Valley as defined in Davis (1982). This is perhaps the least well understood region in Arkansas. As of yet the Arkansas Archeological Survey has not yet developed Study Units, research problems, or approaches for this area.

The principal sources of information about this area comes from earlier, general studies (Harrington 1924; Moorehead 1931; Scholtz and Hoffman 1968), work done to the west in the Ozark Reservoir area (Hoffman et al 1977), Dardenelle Reservoir (Greengo 1957; Caldwell 1958), and the Conway Water Supply Project (Martin and Jones 1978; Santeford and Martin 1980), and work done to the east at Toltec (Rolingson 1982). Myer (1969) reports on excavations done at four sites in connection with the Arkansas River Navigation Project; two of these, 3PU16 and 3PU18, are in Pulaski County. The excavations at the Tom's Brook Shelter (Bartlett 1963) produced important stratigraphic data for the understanding of the Archaic period generally. Michael Hoffman's study of materials from the Kinkead-Mainard site are important for the late prehistoric period (Hoffman 1977). Davis (1978) is a summary statement of the archeological sites in Pulaski and Saline counties. From these disparate studies it is possible to form some very general ideas about the archeological sequences in the region.

It seems certain that the broad general culture-historical sequence used to interpret past human occupations elsewhere in Arkansas is appropriate to this region: Paleo-Indian, Archaic, Woodland, Mississippian, and Historic.

There is no evidence at present which suggests an occupation of the region earlier than the Paleo-Indian period (12,000 ? - 8,000 B. C.). Paleo-Indian occupation is customarily defined by the presence of the highly diagnostic fluted projectile points (Clovis and Folsom). Investigations outside Arkansas have suggested that this period was characterized by highly nomadic groups of hunters whose primary subsistence focus was on the very large, now extinct, Pleistocene fauna. While isolated occurences of the diagnostic items from this period are reported in Arkansas none are known for our area.

Reseachers are now in general agreement that the Paleo-Indian period ended with a slow transition from the highly nomadic groups focused on Pleistocene fauna to the more restricted nomadic groups adapted to Holocene conditions. It is within this transitional position that the Dalton culture is most often interpreted. This widesread culture is again recognized most often by the presence of the distinctive Dalton projectile points. However, recent research has identified several other elements of the tool kit (Morse and Goodyear 1973).

This transition is thought to have stabilized into a very long period (ca. 8,000/7,000 B. C. - 1,000/500 B. C.) in which the region is occupied by nomadic hunter/gather groups organized into a variety of band societies. This is usually referred to as the Archaic Period and is often divided into three temporal divisions: Early, Middle, and Late. Details regarding this very long period are largely wanting but some general propositions have recently gained favor. Many researchers consider it very likely that the Middle Archaic which is on the same general time level as the Altithermal saw a marked decrease in population tied to the region's increased hot and dry climate. A return to a more moderate and moist climate in the Late Archaic allowed an increase in regional population.

Definite time-markers, primarily dart point types, are relatively few and generally not well-secured. However, present researchers tend to agree that the larger side and corner notched points such as the Big Sandy and Johnson points belong early in the Archaic sequence, followed by the basally notched Calf Creek points most often thought to belong to the Middle Archaic period, and the Bulverde point which seems to occur at the transition between Middle and Late Archaic. The Williams point seems to be a particularly good marker for the Late Archaic.

The Woodland Period (ca. 500 B. C. - A. D. 900/1,000) is marked by the introduction of ceramics and the bow and arrow. Chipped stone hoes are also a part of the material culture. The most characteristic dart point type of this period is the contracting stemmed Gary point. This period marks a greatly increased sedentary life-style and what seems clearly to be a more complex social organization.

In western and southwestern Arkansas the Woodland manifestation is now generally designated by the term Fourche Maline (Schambach 1982) which appears to be identical with the Gober Complex identified in the Ozark Reservoir (Hoffman 1977).

In eastern Arkansas the early Woodland manifestation contains a number of the same cultural traits but has been classified under the terms Baytown and Barnes. The Toltec Mounds, perhaps the most spectacular prehistoric remains in Arkansas, date to the end of the Woodland period (A. D. 500 - 900) and have been interpreted as belonging to a cultural group only recently defined by Martha Rolingson as the Plum Bayou culture (Rolingson 1982).

The Mississippian Period (A. D. 900/1,000 - 1541) occupation is largely sedentary and seems to be focused on the cultivation of crops, primarily maize, squash, and beans. In western Arkansas this cultural manifestation is interpreted as Caddoan which is distinct from the Mississippian groups identified for the Lower Mississippi River Valley in eastern Arkansas. Very little is known of Mississippian groups in the vicinity of Little Rock until the very end of this period when the Arkansas River Valley near Little Rock was occupied by the Quapaw. Several very large Quapaw sites have been identified in this vicinity (Harrington 1924; Hoffman 1977).

The beginning of the Historic Period is generally put at the entrance of Europeans into the area during the De Soto expedition of 1541. However, the beginning of sustained European presence in the area does not occur for another century. The establishing of the first Arkansas Post in 1686 (Martin 1978) marked the beginning of the exploration and exploitation of the Arkansas River Valley, first by the French, later by the Spanish, and finally by the United States.

The French quickly established trading relations with the Indians as a means of strengthening their hold on the interior of the North American continent. "Voyageurs" extended trade networks into every major river system, and the Arkansas River offered them almost unlimited opportunities (Dickinson 1982).

They were interested in trade, however, and not in settlements, so that the impact they left on the area was limited to the names of the places they visited. In 1722, Bernard de la Harpe was exploring the Arkansas River when he noticed a tremendous rock, the first he had seen on his trip up the river. He gave it the name "La Rocher Francase." A mile or so downstream, however, was another, smaller outcropping which soon came to be known as the "point of rocks" or the "little rock," and became a landmark for early settlers.

As a result of the French and Indian War, all of Louisiana west of the Mississippi River was ceded to Spain in 1762. The Spanish continued and expanded the trade the French had established with the Indians. A few attempts were to attract settlers, mainly through the issue of land grants. Although some of the grants were in the area of Little Rock, no settlement was established.

The Louisiana Territory, which had been returned to France, was purchased by the Unites States in 1803. Arkansas Post continued to be the major settlement, and the base for traders working up the river, but a settlement was also growing in the area of Cadron (Smith 1974; Nuttall 1821; Ross 1957).

When Arkansas became a territory in July 1819, it was widely known that Arkansas Post was to be only a temporary capital. As the Legislature debated where to locate the permanent capital, only two places received serious consideration - the "point of rocks", and the small settlement at Cadron. The selection was complicated by the controversy surrounding the title to lands at Little Rock.

Two groups of speculators were claimining title to the land (Richards 1969). One group based its claim on a pre-emption claim titled by William Lewis in 1812. The other group based its claim on four New Madrid certificates (issued by the United States government to relieve settlers who had lost land in the New Madrid earthquakes of 1811-1812) which were designated for

use in the vicinity of Little Rock. Each group lobbied to have the capital moved to Little Rock in the hopes that they would increase the value of their land, if they won the suit over the titles.

The Superior Court of the Territory ruled in favor of the Lewis pre-emption claim in June 1821, and the territorial capital was moved to Little Rock in October of the same year. The result was rapid growth in the Little Rock area. From 12 or 13 residents in 1820, the town grew to 430 in 1830, and to 726 in 1836.

During the Civil War Little Rock experienced the difficulties of initially being the Confederate Capital of Arkansas and then occupation by the Union forces. Following the Civil War, and on into the early 20th century, the Little Rock area again experienced a period of growth (Coulter 1982) which has continued sporadically to the present.

Archeological Context in the Project Area. The background and literature search determined that other archeological investigations had been conducted within the general vicinity of the project area but not within the project area itself. Three such investigations are described below.

A general assessment of the archeological resources present within the Fourche Creek Basin was conducted in 1972 by the Arkansas Archeological Survey for the USAED, Little Rock (House 1972). This assessment combined both local interviews with avocational archeologists and field investigations to produce information on 28 archeological site locations within the Fourche Creek Basin. Information was compiled on sites in the area ranging in age from the Dalton period (8000 B. C.) to the early Euro-American historic period. Sites were located on a variety of topographic situations which included hilltops, terraces, and natural levees.

In 1980 the Arkansas Archeological Survey conducted an archeological survey of the proposed airport expansion at the Adams Field Municipal Airport in Little Rock (Lafferty and Otinger 1980). This research consisted of field investigations in an area located about 1 mile north of the Fourche Creek Project boundaries. A total of 12 archeological sites were recorded in this effort. Recovered materials included artifacts dating to both prehistoric and historic time period. Sites were located on a terrace edge/backswamp situation produced by the Arkansas River.

Between November 1980 and July 1981, the Arkansas Archeological Survey conducted a field reconnaissance and a program of testing at selected archeological sites located within the Fourche Sewerage Facilities project area (Cande 1982). The boundaries of the Fourche Sewerage Facilities project parallels portions and in one instance directly crosses the boundaries of the Fourche Creek Project. This study produced data on 35 archeological sites of which 31 were previously unrecorded. These data were strong indications that the Fourche Creek area contained a relatively high

density of small sites with shallow deposits. The sites discussed in this study were generally located on low levees and terraces adjacent to local drainages.

These investigations indicate that, in general terms, at least the vicinity of the project area had been occupied during all of the major periods discussed above.

Previously Recorded Prehistoric Sites. The investigations described above noted that while there was a relatively high density of sites within the larger Fourche Creek drainage only two prehistoric sites, 3PU24 and 3PU45, were recorded in the near vicinity of the project area.

Site 3PU24 was first reported to the Arkansas Archeological Survey in 1968 by a local collector. It was visited by that agency in 1972 during the Fourche Basin Survey (House 1972). The materials collected from this site suggested a long prehistoric occupation that was concentrated during the Woodland (Fourche Maline) and/or Baytown time period. The site measured 100 x 40 meters in extent and was located on a terrace edge adjacent to Fourche Creek.

The site was visited again in 1975 by the Arkansas Highway Department and the Arkansas Archeological Survey in connection with the proposed constuction of Interstate 440. The results of a series of shovel tests suggested to the investigators that most of the archeological deposit at the site had been disturbed by farming and the judgment was made that further investigations at the site would not produce significant additional data.

In 1981 the site was revisited by the Arkansas Archeological Survey for a third time in connnection with the Fourche Sewerage Facilities Project (Cande 1982). At that time it was discovered that most of the site had been completely destroyed by construction associated with Interstate 440. It was believed that a small portion of the site could still be intact at the northern terrace edge. However, no archeological materials were found in shovel tests.

Site 3PU45 was first reported by John House (House 1972) and was thought to represent a possible Fourche Maline/Baytown occuption. Robert Cande revisited the site's location in 1981 but due to restricted ground visibility caused by heavy vegetation he was not able to relocate the site (Cande 1982).

Historical Context in the Project Area. Research to date by Beverly Watkins indicates that because the lands in the project area were swamp and overflow lands, they were not claimed as quickly as the more desirable lands nearby. Some of the land was claimed in 1836 by speculators, including Chester Ashley; most of the rest was claimed in the 1840's and 1850s (Pulaski County nd). Lands along Fourche Bayou itself tended to be claimed before those

along Rock Creek and Grassy Flat Creek presumably because the focus of settlement and commerce was along the Arkansas River.

Although the project area along the Fourche was too low for occupation, there were settlements nearby. The Fletcher and Vaughan plantations were on the Arkansas River on either side of the Fourche. By 1838 there was a settlement southwest of Little Rock on the Fourche that was large enough to have its own school (Moffatt 1953). Early roads connecting Little Rock with Pine Bluff and Washington, and the Southwest Trail into Texas all crossed the creek, but the water was shallow enough that ferries were not needed.

The unhealthiness of the swamp and problems with drainage and flooding led Dr. William Byrd Power to develop a series of plans for damming Fourche Bayou in 1843. He believed that controlling communication between the bayou and the Arkansas River would improve dranage in the east end of the city. The building of Fourche Dam also provided a roadway through the swamp and became a major route along the south bank of the Arkansas River (Ross 1969).

Inaccuracies in the early surveys necessitated a resurvey of much of the state in the 1850s. The maps done at that time show that in 1857 there were still no improved properties along Forche Bayou other than the Dam and the fields where the bayou entered the Arkansas River (House Document 150: 1900). Rock Creek was crossed by several roads. A mill, identified as Gibbon's Mills, is shown in the project area on Rock Creek. This was probably a small grist mill that lasted only a few years.

Fouche Bayou and Fourche Dam played a small part in the Civil War battles that ended with the capture of Little Rock. As the Union Army marched on Little Rock from the east, Major General Frederick Steele decided that the best way to approach the city was to split his forces. He ordered the cavalry under Brig. General John W. Davidson to cross to the south side of the Arkansas River near Terry's Ferry about five miles from Fouche Bayou, while the infantry stayed on the north side of the river. The Confederate Army under Major General Sterling Price had prepared defensive works at Bayou Meto and on the north side of the Arkansas River across from Little Rock, but when Davidson managed to get his forces to the south side of the river, these fortifications became useless. Conferate cavalry commanded by Brig. General John S. Marmaduke rushed to Fourche Bayou to fight a delaying action to cover the Confederdate retreat from Little Rock, but the Union forces prevailed, marching across Fourche Dam and into the city late on the afternoon of September 10, 1863.

Following the Civil War, and on into the early 20th century, the Little Rock area again experienced a period of growth (Coulter 1982). The town spread to the west and southwest, staying away from the low lands and malarial swamps of Fouche Bayou and close to the new constructed railroads (Richards 1969). Land along Rock Creek and Grassy Flat Creek not claimed earlier was now settled under the provisions of the Homestead Act of 1868, which provided for low cost land to actual residents. The improvements made to

qualify for land under this act would have been made on the hills overlooking the creeks, rather than in the project areas. The only improvement on Fouche Bayou in these years was an iron bridge built by Pulaski County where the Little Rock to Pine Bluff road crossed the bayou (Dougan 1980).

Problems continued over the unhealthiness of the swamp as well as with drainage and flooding. In the 1880s the new State Lunatic Asylum was discharging its sewer into a small creek which emptied into Fourche Bayou until local residents complained (Henker 1978). The low lands along the bayou contributed to drainage problems in the east end of the city, and those areas were especially suseptible to flooding. The record flooding of 1927 devastated the area, leaving behind as much as 18 inches of sand (Clay 1979; Daniel 1977). Heavy floods in more recent years have highlighted the continuing need for attention to Forche Bayou and its tributaries.

Historic Sites. Several historic sites dating to the mid-nineteenth century are shown on the General Land Office maps in the general vicinity of the project area (Figures 4 - 7).

The General Land Office survey plat of 1857 for the Rock Creek portion of the project area showed that three agricultural fields and one mill site were near the project boundaries. In addition, the Mamille (sic) Road, Military Road, and two smaller roads crossed the project area at different points (Figure 4).

The surveyors' field notes on file with the Arkansas State Land Office, Little Rock, were checked to determine if more accurate locational information could be obtained for the Gibbon's Mill site. In some cases, locational information such as distance and bearings from the surveyors line will be recorded for cultural features. The results of this effort were negative.

In addition, Pulaski County real estate tax records and personal property tax records for 1868 (the earliest records available) were checked to determine if a mill was recorded. Henry and John Irwin were listed as tax payers for the property on which the mill was located, but no specific mention of a mill in the personal property tax records was recorded (Arkansas History Commission. Pulaski County roll #178a and 198). It is possible to assume that the mill could have gone out of operation before 1868.

The General Land Office survey plat of 1857 for the Fourche Creek portion of the project area listed three agricultural fields and one dam site across Fourche Creek within the project boundaries (Figure 5). No house locations or other assoicated structures were recorded. No historic period features were observed in the western portion of the Fourch Creek segment (Figure 6).

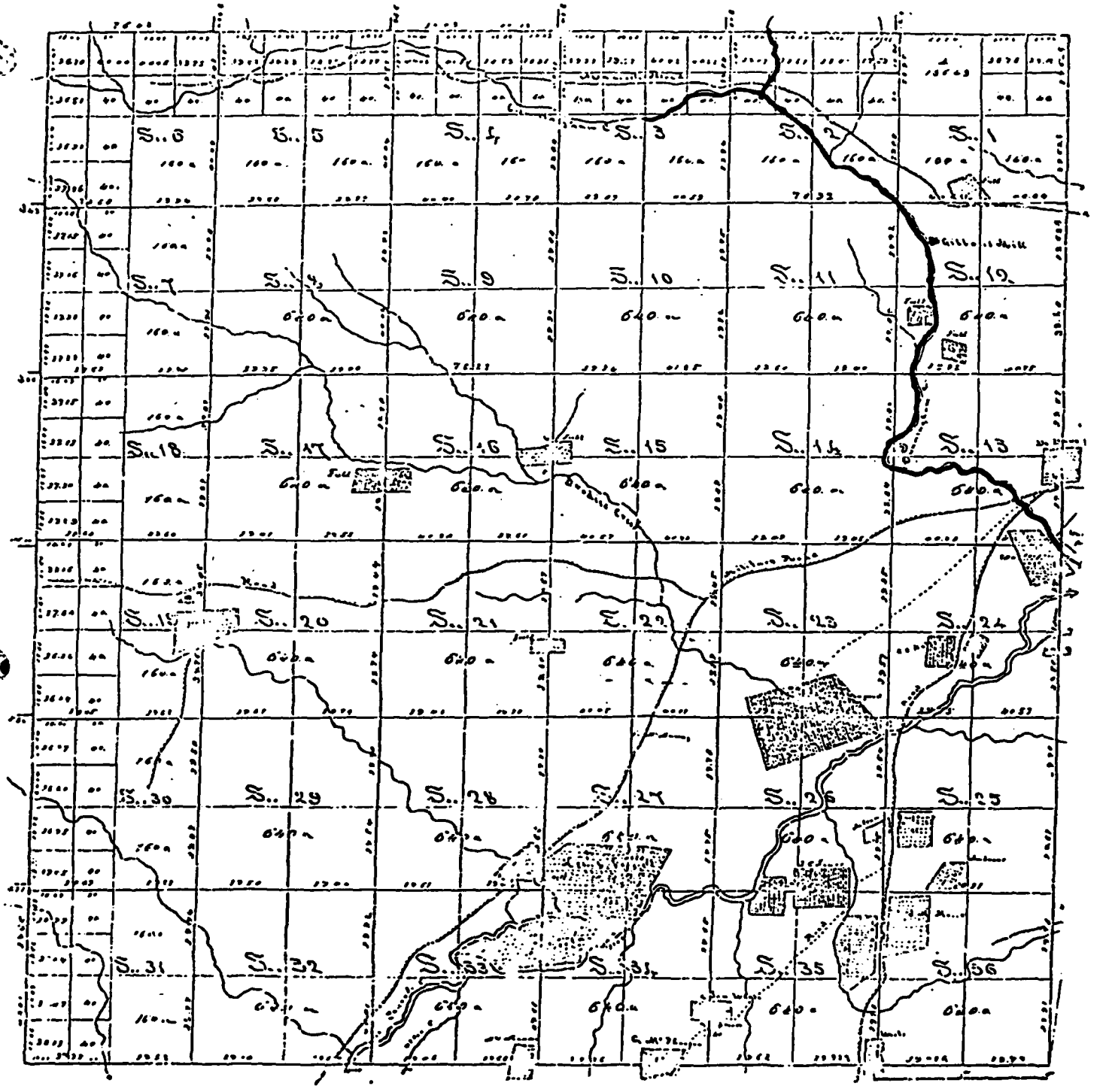

Figure 4. General Land Office Plat, 1857: Rock Creek segment
Township 1 North, Range 13 West
(Project Area shown in heavy outline; astrick indicates Gibbons Mill)

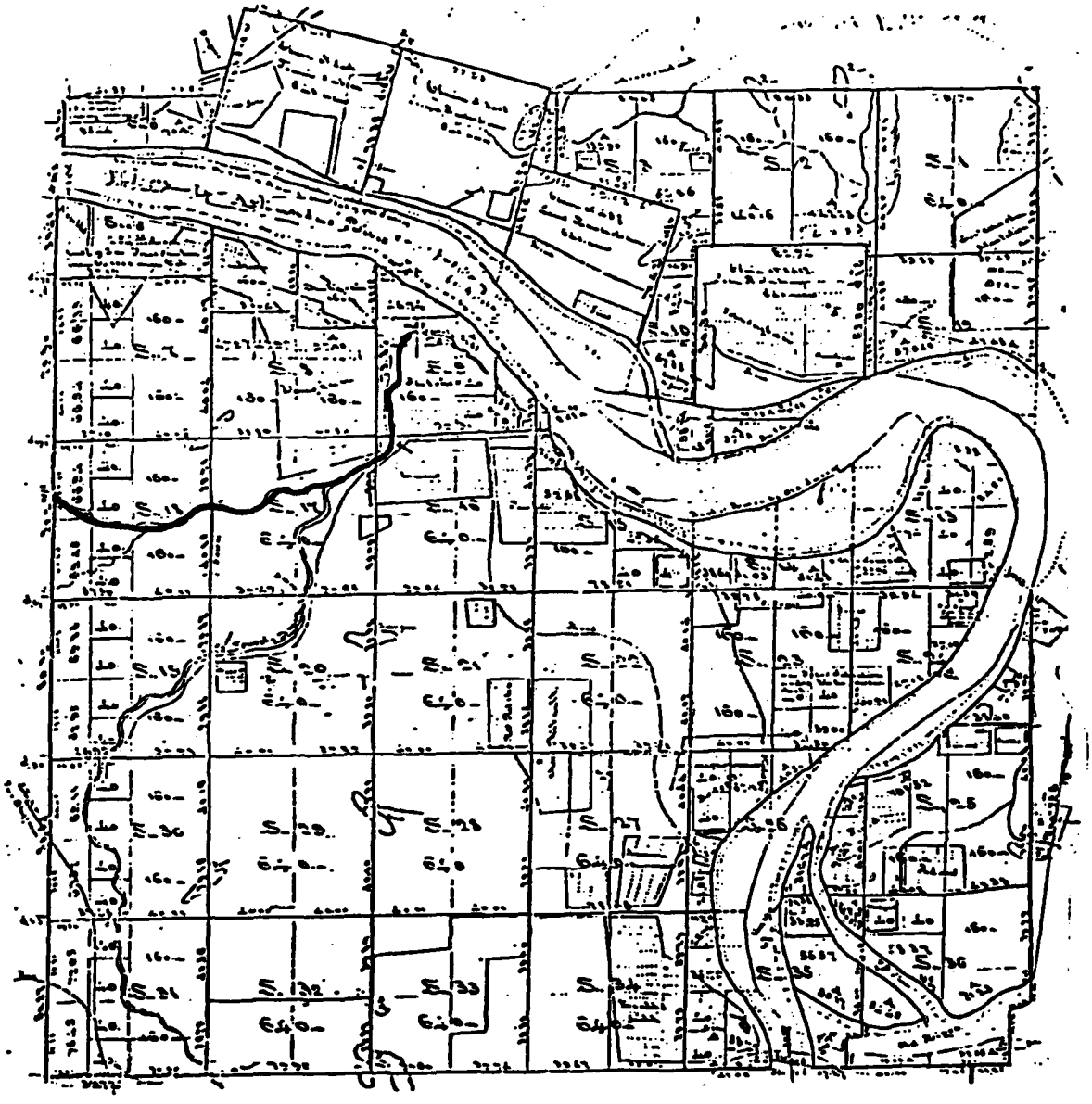

Figure 5. General Land Office Plat, 1857: Fourche Creek segment, east Township 1 North, Range 11 West
(Project Area shown in heavy outline)

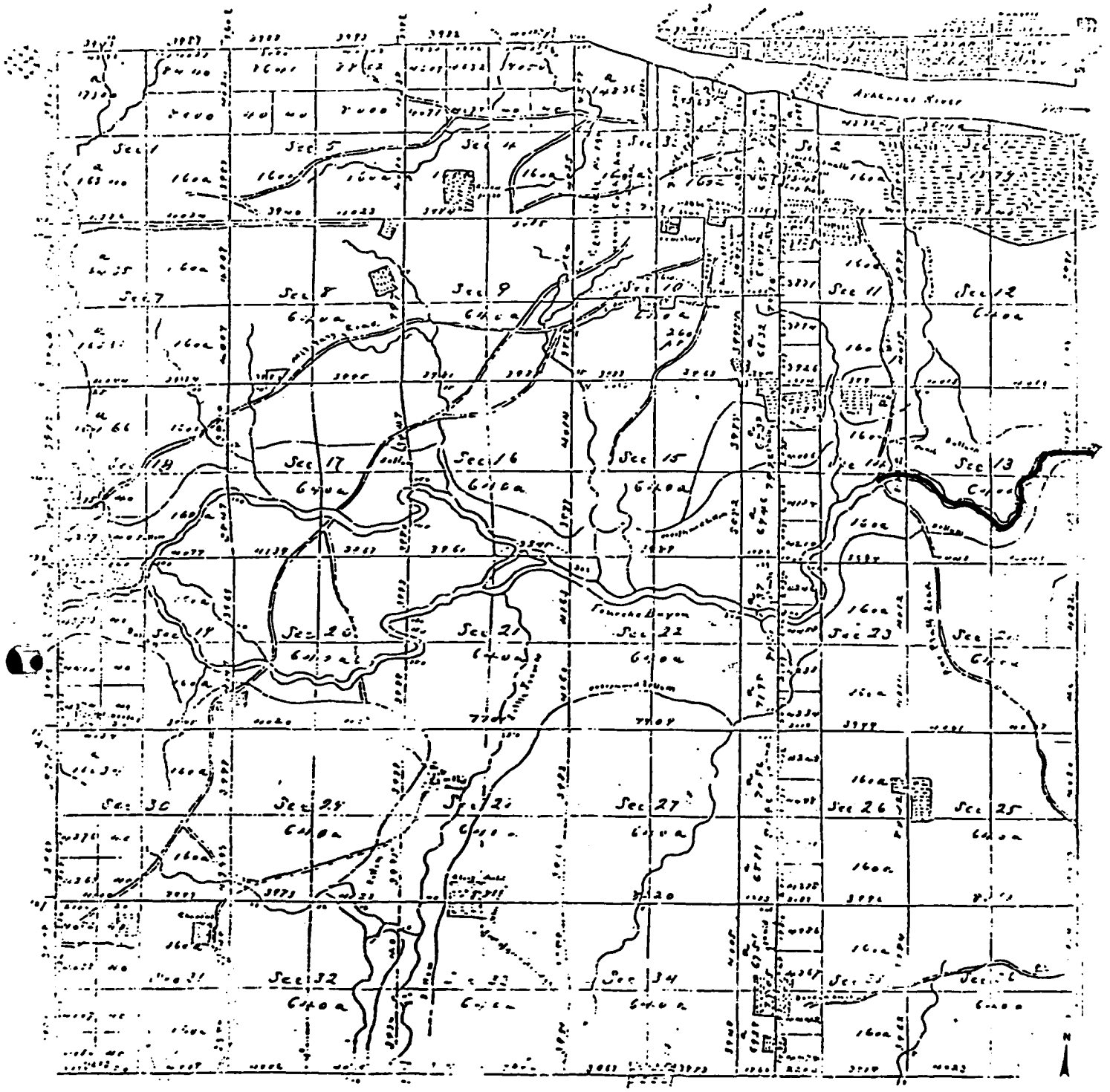

Figure 6. General Land Office Plat, 1855: Fourche Creek segment, west Township 1 North, Range 12 East
(Project Area shown in heavy outline)

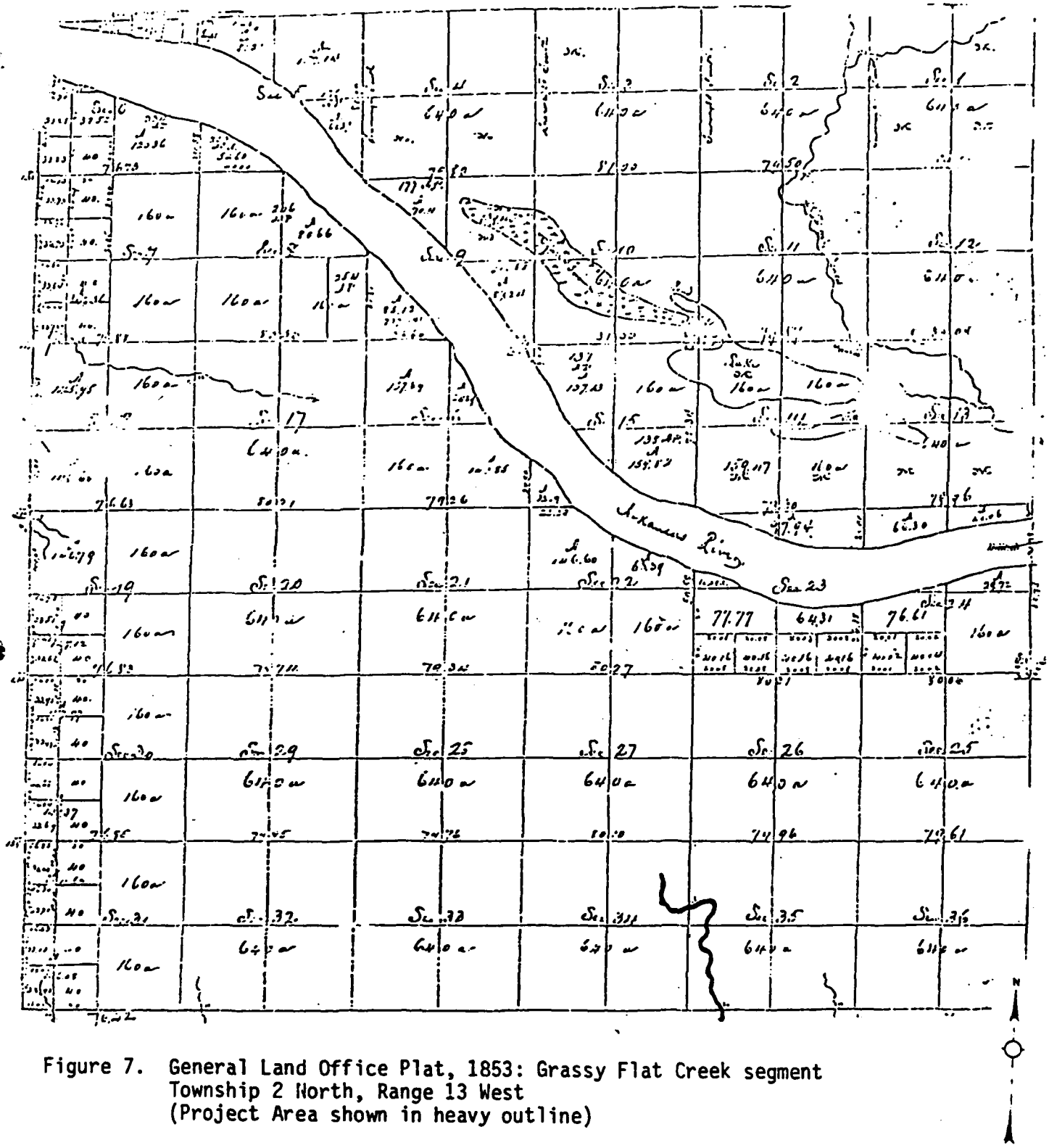

Figure 7. General Land Office Plat, 1853: Grassy Flat Creek segment
Township 2 North, Range 13 West
(Project Area shown in heavy outline)

No historic sites were recorded on the General Land Office survey plats for the Grassy Flat Creek unit (Figure 7).

There are no historic standing structures on record at the Arkansas Historic Preservation Office that are located in the project boundaries. No sites listed on, or as eligible for, the National Register of Historic Places are located within the project area.

Geomorphological Analysis

The following geomorphological analysis is taken verbatim from Smith 1984.

Fourche Creek

General Geomorphic Setting. Fourche Creek is an example of a well developed meandering stream which has been substantially influenced by the geomorphic activity of the Arkansas River, to which it is tributary. Meandering through a well developed floodplain, Fourche Creek flows from the Fourche Mountains region of the Ouachita Mountains province onto the alluvial valley of the Arkansas River approximately three miles upstream from its point of confluence with the Arkansas (Figure 8). Throughout its lower reach, below its confluence with Rock Creek, Fourche Creek meanders through a relatively wide flat alluvial valley, bounded on the southeast by Granite Mountain, and on the northwest by several low hills within the city of Little Rock.

Holocene geomorphic activity of the Arkansas River in the vicinity of Little Rock has strongly influenced the geomorphic development of the lower Fourche Creek. The Arkansas River appears to be (and probably has been for the last several thousand years) actively migrating laterally while it aggrades vertically. The impact of laterial migration by the Arkansas River on Fourche Creek is substantial yet variable. Before 1920 the Arkansas River migrated away from the mouth of Fourche Creek which was extended probably causing aggradation in the lower Fourche channel. However, since at least 1920, the Arkansas has been migrating south-westward toward the present mouth of Fourche Creek, resulting in the cutting off of approximately three miles of lower Fourche Creek. This natural shortening of Fourche Creek will have the effect of steepening the gradient of Fourche Creek, causing channel bed erosion.

Aggradation of the Arkansas River floodplain has apparently been substantial during the last several thousand years, as evidenced by the thick natural levee deposits near the present mouth of Fourche Creek. Aggradation in the Arkansas River floodplain has resulted in aggradation of the lower Fourche Creek bed and backwater flooding on the lower reach of Fourche Creek. Extensive backwater flooding by the Arkansas River into lower Fourche Creek Valley is the most probable factor responsible for the existence of extensive lowland areas between the confluence of Fourche and Rock Creeks and the Frazier Pike bridge.

Geomorphic Features and Landforms. The landscape of lower Fourche Creek Valley has undoubtably changed significantly during the last several thousand years. As the Arkansas River has aggraded, the lower Fourche Creek channel has probably evolved from an actively meandering

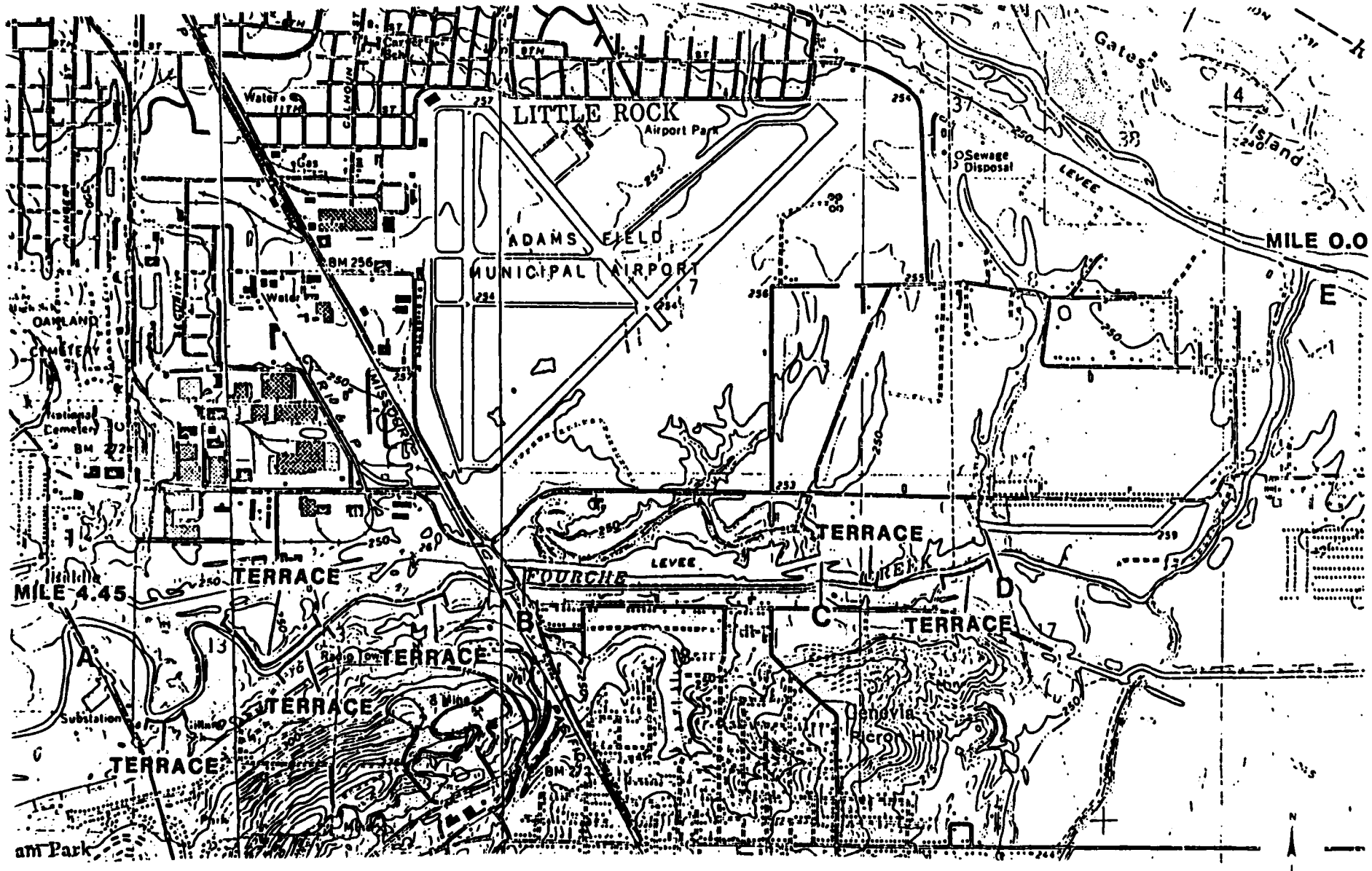

Figure 8. Geomorphic Features, Fourche Creek segment (from Smith, 1984)

stream with a relatively well drained floodplain to a slowly meandering stream with a poorly drained (swampy) floodplain bounded by segments of a low well drained terrace.

The floodplain of Fourche Creek within the project area (mile 0.0 to mile 4.45) exhibits geomorphic features and landforms typical of a stream meandering in its alluvial valley. However, the Fourche Creek channel in the project area may actually be examined in four geographically discrete reaches (Figure 8). From point A (mile 4.45) to point B (Fraizer Pike Bridge), Fourche Creek is freely meandering through its own alluvium which is draped by backwater flood deposits (massive clays) which probably reach a thickness of three feet. Within the project right-of-way (50 feet from to bank on both banks) the primary landform which occurs is a low flat floodplain consisting of Fourche Creek point bar alluvium veneered by backwater clays. However at four locations, Fourche Creek meanders against what appears to be a low terrace which probably extends above the modern floodplain by 8 to 12 feet. About halfway through the reach A-B, Fourche Creek meanders against an abandoned channel segment (previously a small oxbow lake) created by lateral migration.

The natural channel reach B-C of lower Fourche Creek would be very similar to reach A-B but, Fourche Creek has been straightened in this reach, with the old natural channel of Fourche Creek still visibile to the north. Throughout reach B-C, the channel and right-of-way are located in Fourche Creek point bar alluvium veneered by backwater clay.

Fourche Creek re-enters its natural channel at point C. The reach C-D is similar to reach A-B, in that most of the right-of-way is backwater clay over Fourche Creek point bar deposits. However, in reach C-D, Fourche Creek has re-worked older alluvial deposits of the Arkansas River. At two locations Fourche Creek channel encounters the low terrace (correlative to the low terrace in reach A-B).

From point D to point E (mile 0.0) Fourche Creek flows through Arkansas River point bar alluvium which is veneered by natural levee deposits from the Arkansas River. Natural levee deposits from the Arkansas River found in the banks of Fourche Creek channel increase in thickness from D (probably several feet thick) to E (probably 10 to 12 feet thick).

Archeological Significance of Geomorphic Features and Landforms. The lower Fourche Creek floodplain in the project right-of-way is primarily one of a low, poorly drained clayey surface adjacaent to a channel which has meandered laterally during the last several thousand years. This floodplain surface has most likely been characterized by slow burial by backwater (clay) deposits during times of flood on the Arkansas River and Fourche Creek, accompanied by local erosion and

deposition from channel migration. Deposition from backwater flooding has most likely resulted in shallow burial of archeological materials older than several hundred years. Archeological materials may be buried by as much as 10-12 feet in the lower reach of segment D-E. Where the low terrace is encountered, the probability of surficial occurrence of archeological materials should be greatly increased.

Rock Creek

General Geomorphic Setting. Rock Creek a principal tributary of Fourche Creek, is a well developed stream for its size (contributing drainage area). The floodplain of Rock Creek is moderately wide and graded, indicating that Rock Creek has been developing its floodplain through cycles of lateral and vertical erosion and valley aggradation, for a significant period of time (at least 12,000 years). It is quite likely that Rock Creek has experienced several major cycles of valley downcutting and aggradation throughout the Holocene, which would have substantially altered the landscape of Rock Creek valley and the preservation potential of archeological material. However, using 1:24,000 topographic maps and 1:60,000 mosaics of aerial photograhs, the existence of these geomorphic cycles is not apparent. Consequently, the amount of speculation regarding the geomorphic history of Rock Creek and the distribution of specific gemorphic features in the project right-of-way is extremely limited.

Geomorphic Features and Landforms. From the topographic maps and aerial photographs, Rock Creek appears to have a relatively straight channel, characteristic of small tributary streams (Figure 9). Low channel sinuousity suggests a minimal role of lateral migration in valley erosion and floodplain development. The dominant processes of valley development appear to have been cyclic vertical erosion and aggradiation. Throughout the project right-of-way the specific geomorphic environment (landform) is floodplain adjacent to natural channel. This specific geomorphic environment has most likely been experiencing sedimentation and vertical accretion during the last 70 or 80 years as a direct result of increased sediment production to Rock Creek from agricultural activities in the Rock Creek drainage basin.

At a few locations, Rock Creek appears to be flowing against the valley wall of its floodplain. The dominant geomorphic processes at these locations are stream bank erosion from attack by Rock Creek in the hillside and downwasting of the hillside into Rock Creek after erosion.

Additionally, a third discrete geomorphic environment of very limited occurrence, is found at and immediately west of the Asher Avenue bridge. This environment consists of a local colluvial slope extending across the Rock Creek floodplain to the present channel of

Figure 9. Geomorphic Features, Rock Creek segment (from Smith, 1984)

Rock Creek. The colluvial slope consists of local material which has been eroded by washing or mass failure from the hillside and deposited in the form of a low slope prograding across the Rock Creek floodplain.

Archeological Significance of Geomorphic Features and Landforms. Rock Creek and its floodplain is not a major element of the local landscape. It is a small tributary valley whose principle stream exhibits a highly variable flow regime, from quick local floods to periods of no flow during moderate drought. Cyclic periods of deposition and erosion in Rock Creek valley have likely resulted in preservation and destruction of archeological sites. Widespread alluviation in the lower Fourche Creek valley due to backwater flooding from the Arkansas has not occurred in Rock Creek valley, however it is likely that the pre-European contact surface in Rock Creek valley is covered by historic sedimentation. Low terrace surfaces (which have not experienced recent burial) probably occur in Rock Creek valley, but they are not discernable on the maps and aerial photographs examined.

Grassy Flat Creek

Grassy Flat Creek is very similar to Rock Creek, but smaller. The floodplain of Grassy Flat Creek appears to consist of narrow and shallow alluvium. Grassy Flat Creek is an ephemeral stream and has not experienced a level of geomorphic development beyond the most simple stage, that of valley downcutting and the desposition of a thin strata of alluvium in its narrow valley.

Throughout the Grassy Flat Creek project right-of-way the geomorphic environment is one of narrow floodplain adjacent to a small stream experiencing downcutting (Figure 10). The small narrow floodplain may be thinly veneered by historic sedimentation. Valley sidewalls rise abruptly from the floodplain to an elevation of approximately 200 feet.

Progressive erosion in Grassy Flat Creek valley has most likely destroyed all but the most recent (last several hundred years) archeological materials. Artifacts found in the project right-of-way, unless dating from very late occupations, are probably not in an undisturbed context.

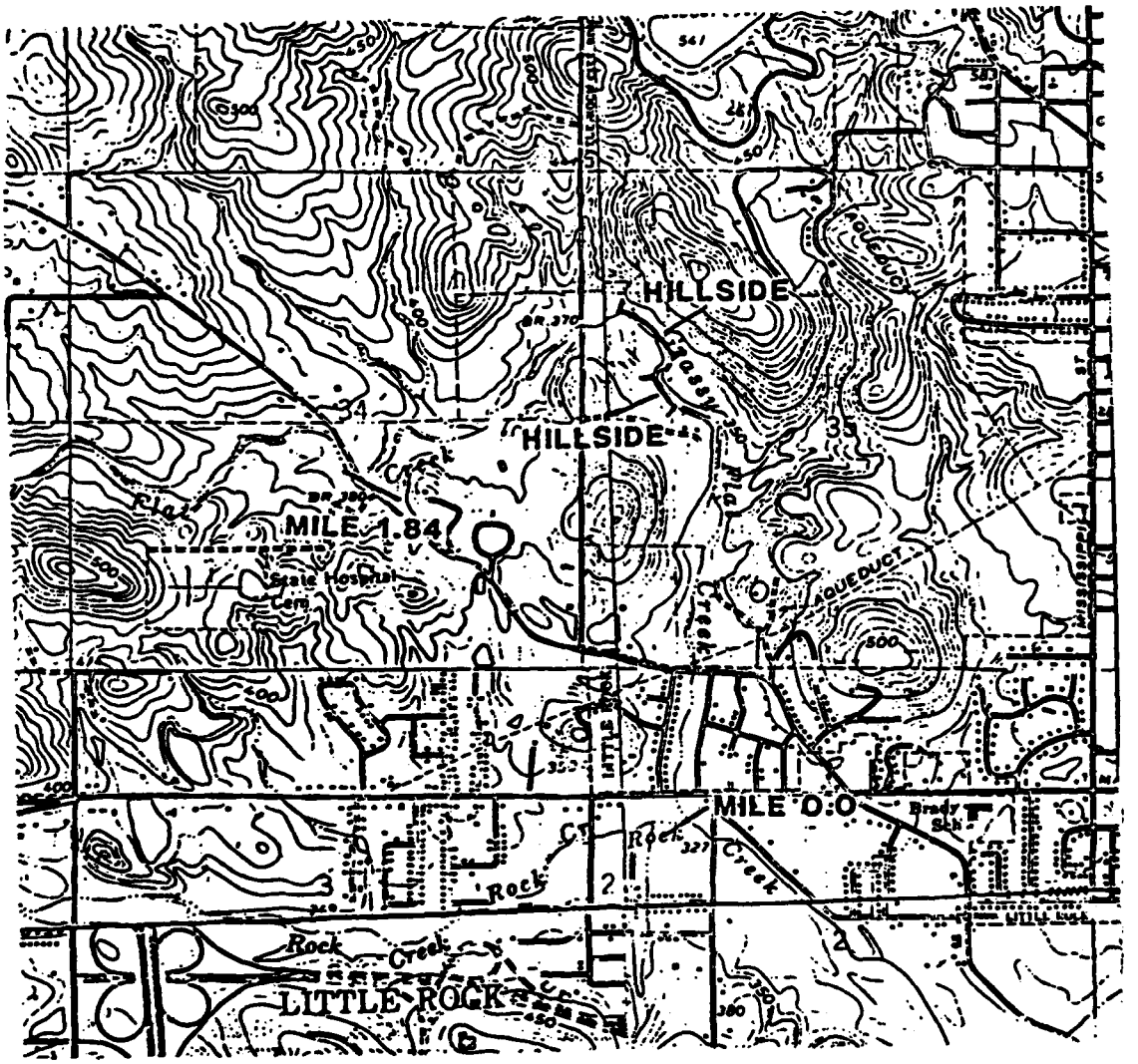

Figure 10. Geomorphic Features: Grassy Flat Creek segment (from Smith, 1984)

Field Work

The following discussion of field observations are divided into three segments; Fourche Creek, Rock Creek and Grassy Flat Creek. As indicated above observations were recorded for the project area on Survey Unit Forms for each of these segments.

Fourche Creek

This segment of the project area was divided into three Survey Units (Units 6, 7, and 8) as shown on Figure 11.

Soils. The soils in the area reflect the dominant geomorphological processes described by Smith. The western two thirds of the area is classified as Perry clay soil which has formed in the thick clayey deposits laid down by slack-water deposits of the Arkansas River. The eastern one third, from the general vicinity of Lindsey Road to the Arkansas River (Reach D-E; Survey Unit 8), is classified as Keo silt loam which has formed in the young natural levels created by the Arkansas River.

Vegetation. In its natural state the area supports a mixed hardwood forest community with cypress occuring in the creek channel. Where it is not disturbed the modern understory consists of dense stands of briars, weeds, and vines.

Modern Land Use. Major urban development has drastically altered particular areas. Perhaps the most extensive alteration was caused by the construction of Interstate 440. The effects of this construction, primarily excavation and grading, are seen throughout Survey Units 6 and 7.

In addition to the highway construction a portion of the creek has already been rechannalized (Survey Unit 7; Reach B-C). Some levee work has been done in the area and old spoil piles are still visible. Railroad and paved road construction is evident along several sections of the project right-of-way, especially within Survey Units 6 and 7.

Agricultural development is present in the area located east of Lindsey Road to the mouth of Fourche Creek (Survey Unit 8). Major portions of this area have been disced and, at the time of field work, was in four foot high soybeans. Small areas of pasture are also present.

Geomorphic Features. The geomorphological analysis of this segment identified six places at which the project area came close to or touched terrace features. Four of these were located in Survey Unit 6 (Reach A-B) and 2 in Survey Unit 7 (Reach C-D). These areas were subjected to intensified examination.

Field investigations concluded that these terrace formations were outside of the narrow confines of the project area. Nevertheless, they were examined

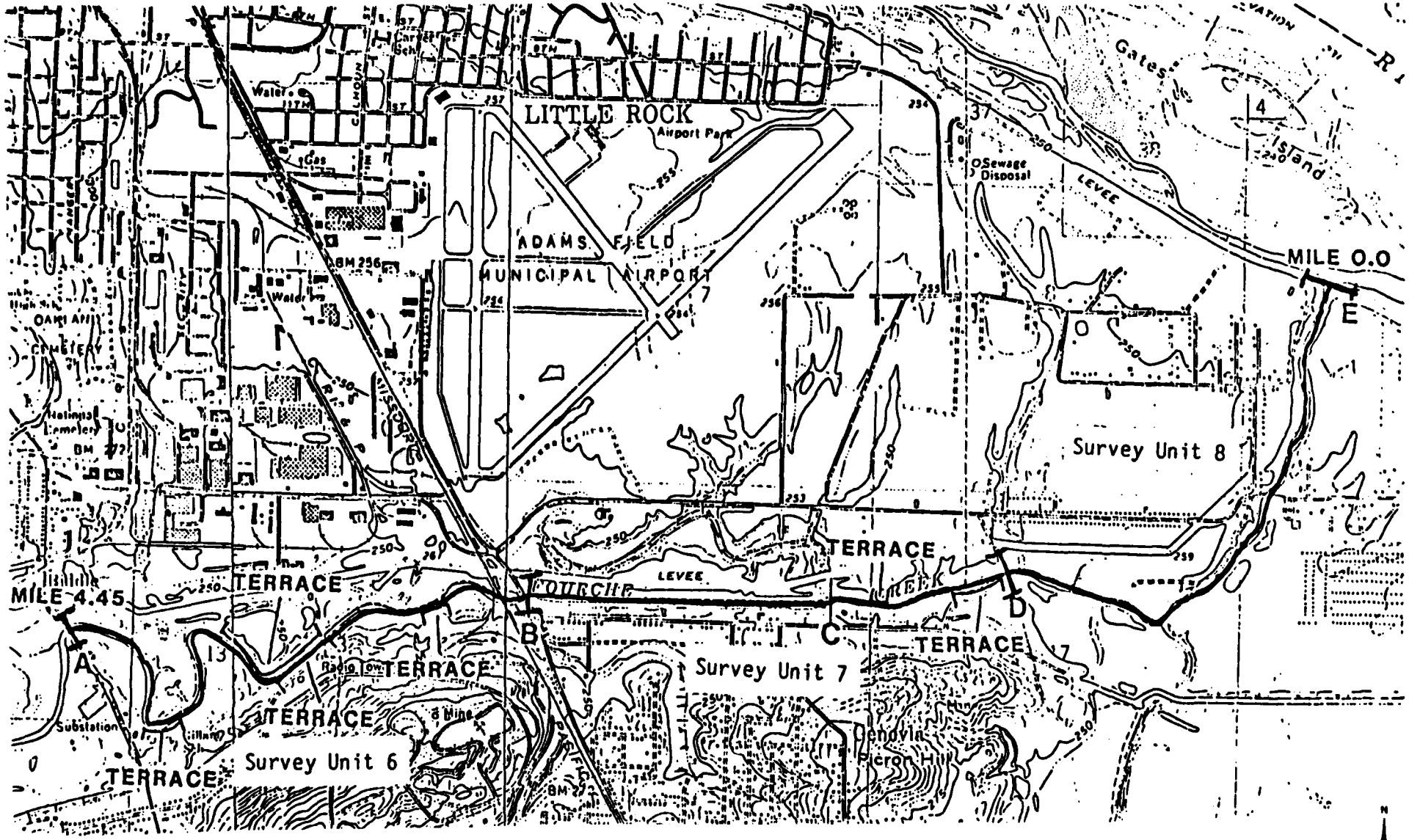

Figure 11. Survey Units, Frouche Creek segment

during this effort. These examinations determined that within Survey Unit 6 these terraces had been extensively modified by recent construction activities. The terrace on the north side of Fourche Creek in Survey Unit 6 has been completely removed in the vicinity of the project area. The three terrace locations on the south side of Fourche Creek in Survey Unit 6 had also been severly impacted. The western-most location is now the site of a public school. Proceeding eastward the next terrace location had been the site of construction (and later demolition) of tower facilities. A small road along the edge is littered with recent trash. Large holes and erosion gullies are prevalent. The eastern-most terrace locality in Survey Unit 6 is covered by Interstate 440. However, there does exist a small amount of area, less than one half acre, which field observation suggested might contain some of its integrity. At the time of examination the ground surface had been cleared and the visibility was over 90%. The area was walked at transect intervals of 10 meters and shovel tested every 10 meters. No cultural materials were located.

The terrace localities near the eastern end of Survey Unit 7 have also been extensively damaged. Since these were the location of two previously recorded sites they will be described below.

A second geomorphic feature of the Fourche Creek area of importance to this investigation is the heavy deposit of back-water clay observed in Survey Units 6 and 7. A small drain area on the south side of Survey 6 near its eastern end revealed a portion of this clay deposit covering an undulating surface of coarser-grained sediments judged to be features caused by Fourche Creek's lateral migration. This clay deposit was observed to vary from slightly less than 1 meter to over 2 meters in thickness (Figure 12).

The situation was very different in Survey Unit 8 which covered portions of the natural levees formed by the Arkansas River. The soil was consistently a light brown sandy loam. At the eastern end of the Survey Unit the creek bank profile revealed a deposit of loamy sand over 3 meters thick (Figure 13).

Previously Recorded Sites. Background research had determined that two sites, 3PU24 and 3PU45, were in the very near vicinity of the project area within Survey Unit 7. Both locations were extensively examined.

The location for site 3PU24 was found to be on the very edge of the project boundary. Shovel tests were excavated in an area that was judged most likely to contain undisturbed terrace deposits. All areas of open ground surface were examined. No artifacts were observed. The field observations support the earlier assessment that the site has been destroyed (Cande 1982).

The presumed location of site 3PU45 was inspected. Examination revealed that very current bulldozer work and new levee construction was in progress. A very small area of the terrace near the project boundary was, however,

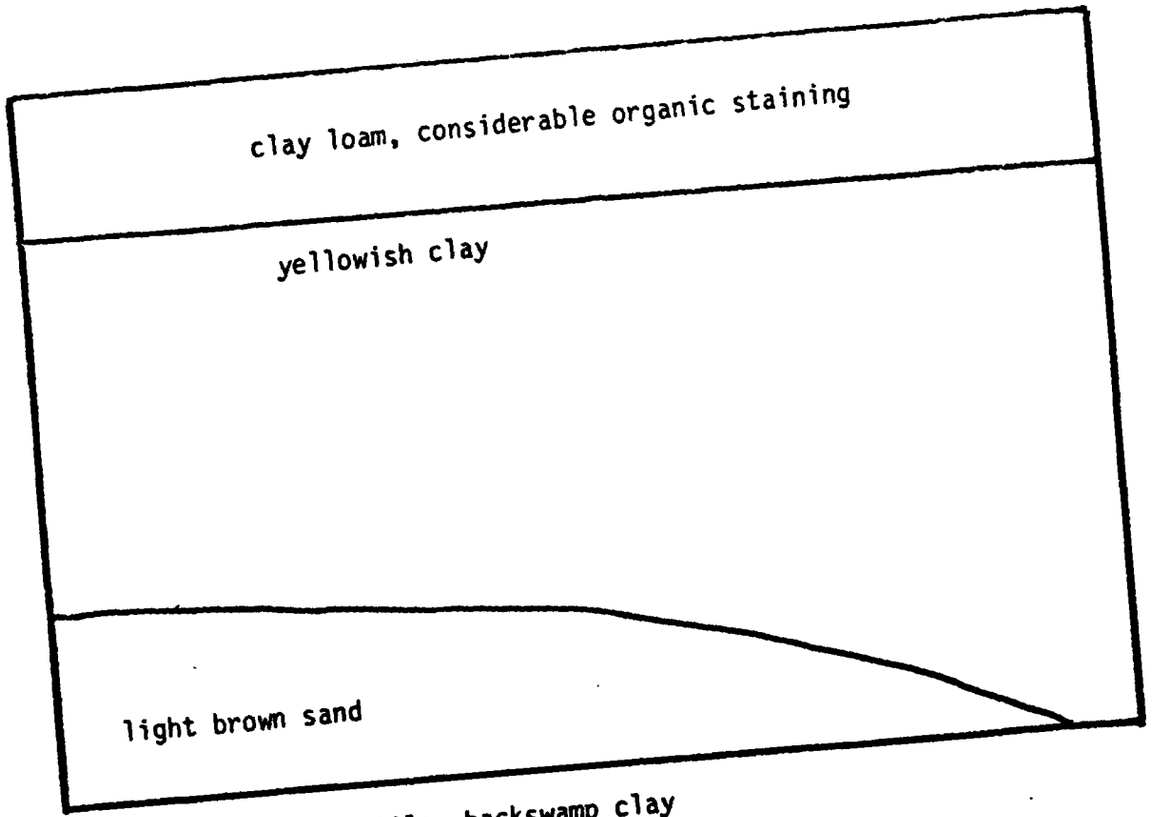

Figure 12. Soil Profile, backswamp clay

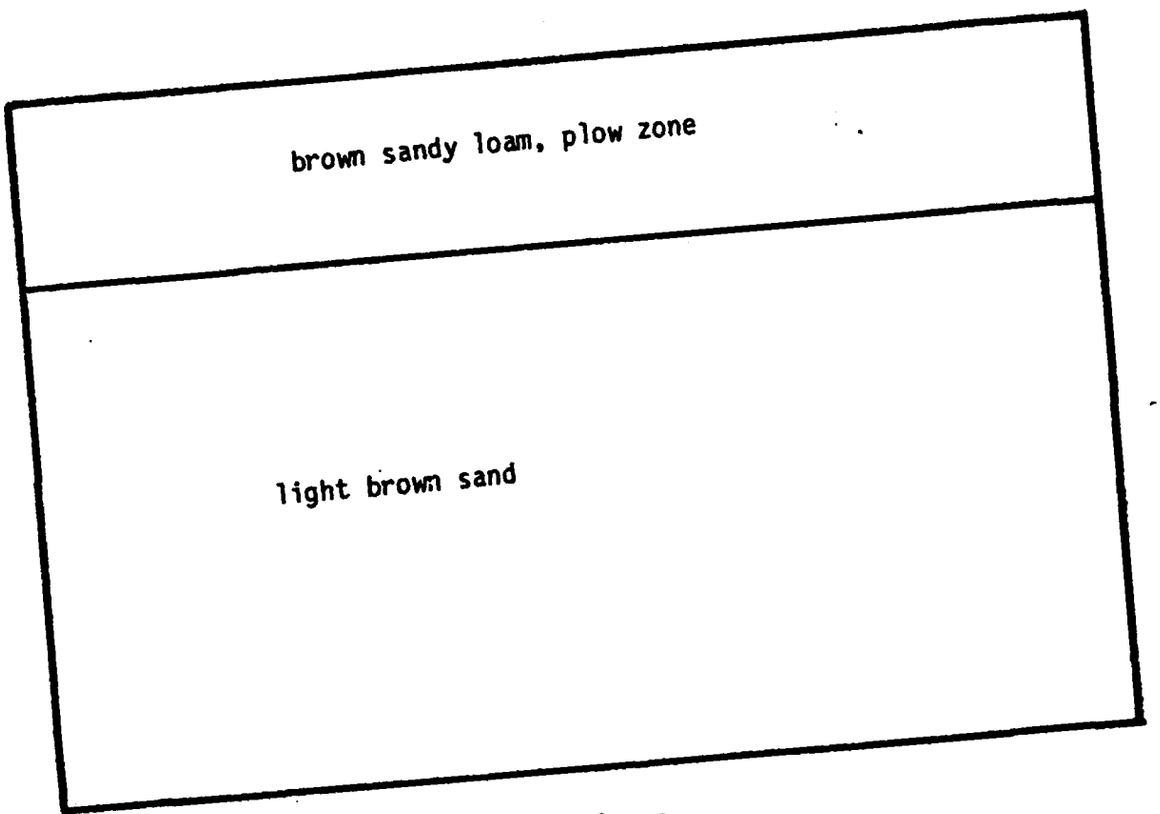

Figure 13. Soil Profile, natural levee

judged to have some integrity. A total of 10 shovel tests were made in this area with negative results.

The General Land Office maps (Figure 5) placed the location of several mid 19th Century agricultural fields near the eastern end of Survey Unit 8. No materials dating to this period were observed.

Previously Unrecorded Sites. One previously unrecorded site, 3PU291, was located north of Fourche Creek in Survey Unit 8. This is a relatively light but consistent surface scatter of historic material measuring approximately 40 x 30 meters. It is situated on a very small rise in the floodplain of Fourche Creek about 40 m west of Fourche Creek. At the time of investigation the site area was covered in waist-high soybeans with ground surface visibility ranging from 10% to 80%.

Shovel tests were excavated along transects set both north-south and east-west across the site at 10 meter intervals. A total of 20 shovel tests, each approximately 30 cm in diameter, were dug to a depth of about 50 cm. No cultural materials were recovered from the shovel tests and no indications of subsurface features were detected at the site.

The soil profile at the site was a mixed light brown, very sandy loam plowzone about 25 cm deep over a homogeneous light brown, very sandy loam. No artifacts were found in these shovel tests.

A general surface collection was made of a representative sample of the artifacts present on the site (Table 1; Figure 14).

Table 1. Artifacts Recovered from 3PU291

Number	Descriptions
3	Brick fragments
14	Plain Whiteware fragments
1	Banded Whiteware fragment
4	Albany Slip Stoneware fragments
3	Bristol Slip Stoneware fragments
2	Blue Spongeware on Stoneware fragments
1	White Banded Yellow Stoneware
1	dark green bottle fragment
5	green glass jar fragments, 1 with the letters "ent"
1	clear glass jar or bottle base
6	purpled glass fragments, including 1 bottle rim, 1 bottle neck (?) fragment, 1 bottle fragment, 1 basal fragment from a small jar or bottle, 1 fragment with an impressed shell pattern, and 1 ornamented bottle stopper

Figure 14. Selected Artifacts from 3PU291 (a - purpled glass bottle rim fragment; b - broken purpled glass ornamented bottle stopper (?); c - purpled glass fragment with impressed shell pattern; d - earthenware fragment with blue transfer design; e - whitewear fragment with blue and red stripes; f - glazed yellow earthenware fragment with white stripes

Most of these artifacts could be placed comfortably in the late 19th or early 20th centuries. Certainly this is the case with the Albany Slip, Bristol Slip, and Spongeware pieces (Derven 1980). Purpled glass was not manufactured after about 1915 but such items were common on sites occupied between World War I and II.

Pulaski County tax and real estate records for this locality were examined by Michael Swanda. No record of any structure(s) or facilities was found.

It is our conclusion that these materials are the remains of a tenant farm structure dating to the 1920's and/or 1930's.

An Arkansas Archeological Survey site form has been completed for this site. Copies have been included with this report and forwarded to the Arkansas Archeological Survey.

Artifacts collected have been cleaned and prepared for curation.

Rock Creek

The Rock Creek segment of the project area was divided into 4 different Survey Units (Figure 15).

Soils. Three different types of soil have been mapped in the Rock Creek area. The predominant series is the Leadvale-Urban land complex which is a moderately well drained, nearly level to gently sloping soil formed in loamy sediment of weathered sandstones and shale.

A small portion of Rexor-Urban land complex series is located in the southern portion of the area. This is a frequently flooded but well-drained soil which is located along drainages. It is made up of Rexor soils that have been combined with fill from other sources and later modified by urban development.

The third soil is a small area described as Urban land located along Rock near University Avenue. This is a general term used to classify soils in areas where urban development precludes any specific soil descriptions.

Vegetation. Vegetation present within the Rock Creek area consists of a bottomland forest community containing cypress mixed with various hardwoods. Hillslopes support a mixed hardwood/pine forest community. The understory consists of grasses located in public park areas, weeds, and a relatively dense section of briars and vines.

Modern Land Use. Urban development along Rock Creek has been extensive in certain areas. Major modification has occured along the construction routes of Interstate Highways 430 and 630.

Figure 15. Survey Units, Rock Creek segment

Areas along major street crossings, such as University Avenue, have encouraged the construction of large shopping centers, commercial manufacturing areas, private residences, and other facilities. Portions of Rock Creek in the areas of Kanis Park (Survey Unit 3) and Boyle Park (Survey Unit 4) did not seem to have been as severely impacted although it can be assumed that some minor landscaping has taken place in these areas as well.

Geomorphic Features. Geomorphic analysis had indicated the presence of several hillslope features which were thought to have some special potential for the presence of cultural resources. These are the locations at which Rock Creek appears to be currently cutting into the hillside (3 locations in Survey Unit 4) and the colluvial slope at the southern end of Survey Unit 4.

The hillside location immediately south of 12th Street exhibited a relatively flat to gently sloping bench area next to the creek channel. This location is currently in a mixed hardwood environment. Shovel tests were excavated along this bench with negative results.

Two other hillside locations in Survey Unit 4, the most southerly locations, were found to have 30 to 60 degree slopes adjoining the floodplain making them unsuitable for the location of cultural resources.

The colluvial slope at the south end of Survey Unit 4 has been extensively modified by prior construction. Construction on the site included a number of vacant buildings, pavements, and dumped waste materials.

Previously Recorded Sites. There were no archeological sites on record for this portion of Rock Creek. However, the General Land Office map (Figure 4) indicated the presence of a mid-19th century mill, Gibbons Mill, either within or very close to the project area. This portion of Rock Creek was inspected with careful attention to the possible presence of either features or materials which might relate to this facility. However, no foundations, building materials, or artifacts which could be associated with such a facility were observed.

Previously Unrecorded Sites. Site 3PU290, an isolated find, was located in Survey Unit 1. This consists of an isolated piece of worked lithic material, a bifacially worked novaculite flake. This was found in the exposed gravels of the Rock Creek channel. Since this item was clearly not in situ the general vicinity on both sides of the channel was extensively examined. A series of shovel tests were excavated along a north-south and east-west transects at 10 meter intervals with negative results. Ground surface visibility immediately north of Rock Creek was limited by relatively thick mixed hardwood forest with leaf cover, briars, weeds, and brush. The area located south of the channel is a severely eroded low floodplain that is subjected to frequent flooding and scouring. Ground surface visibility in this eroded area was moderately restricted by brush and small bushes within an open hardwood forest situation.

This area was revisited to make doubly certain that no other materials were in the area. At this time areas of exposed ground surface again were visually inspected and additional shovel tests were dug. The results of this extra effort were also negative.

While it is our best judgment that this is an isolated artifact an Arkansas Archeological Survey form has been completed for this locality.

Grassy Flat Creek

Observations related to the examination of the Grassy Flat Creek segment of the project area were recorded in Survey Unit 1 (Figure 16).

Soils. The soil in the Grassy Flat Creek segment of the project area are classified as Leadvale-Urban which, as described above, is moderately well drained, nearly level to gently sloping soils formed in loamy sediments of weathered sandstone and shale. They have been modified by urban development.

Vegetation. The Grassy Flat Creek area supports a mixed hardwood/pine forest community with an understory of thin to relatively dense sections of understory composed of briars, weeds, and grasses.

Modern Land Use. Moderate to extensive alterations occured in this area. Parking lots, commercial buildings, apartment complexes, and private residences border the project area.

Geomorphic Features. The dominant geomorphic processes identified for this segment were related to hillside erosion. Within the project area there are two locations at which the present channel appeared to be cutting into the hillside. These were examined with particular care.

Both of these locations were found to be fairly steep slopes that joined the floodplain at 30 to 45 degree slopes. No artifacts were observed at these locations.

Previously Recorded Sites. There were no previously recorded sites within this segment of the project area.

Previously Unrecorded Sites. No archeological sites were found in the Grassy Flat Creek area.

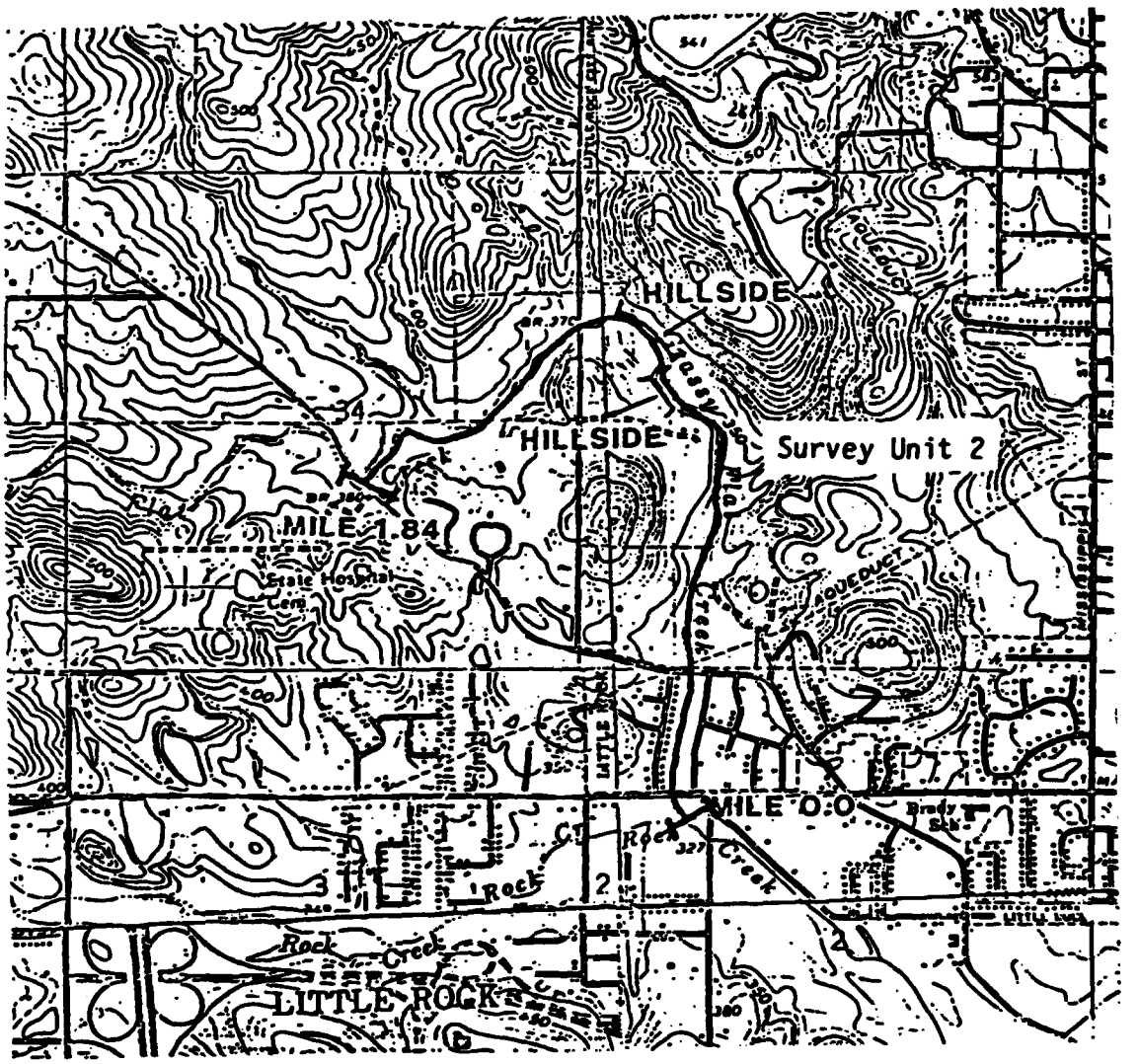

Figure 16. Survey Units, Grassy Flat Creek segment

INTERPRETATION OF SITE SCARCITY

Since the general Fourche Creek Basin is known to contain numerous prehistoric and historic sites some discussion of the lack of such cultural resources in the project area is appropriate. The following is a list of factors which we believe to have caused this situation.

First of all it is noted that the project area itself is a very narrowly defined corridor. The examination of only 25 m on either side of the existing bank lines would not normally be sufficient to locate many sites even within a very favorable alluvial environment.

Secondly, the geomorphological processes at work in the project area have had both negative and as positive effects upon the choice of the area as a location of sites as well as the preservation of the archeological record. The geomorphological analysis indicated that both vertical and lateral accretion has been at work in the Fourche Creek segment. A large portion of the western segment of Fourche Creek is a backswamp which would not have been particularly amenable to the placement of long-term sites. It is of course possible that more short term, temporary sites were established in this environment but these are quite likely now to be buried under massive deposits of clays and inaccessible to any sort of ordinary archeological detection. At the eastern end of Fourche Creek that portion of the valley which runs through Arkansas River natural levee deposits has been severely impacted by recent, last 100 years or so, activity from the Arkansas River. Three miles of channel have been destroyed by Arkansas River lateral migration and the continuing creation of natural levees has more than likely buried any site older than 100 years.

In the Rock Creek and Grassy Flat Creek segments, with their much narrower floodplains, the situation is somewhat different but hardly less amenable. Rapid episodes of alluviation and scouring have quite likely destroyed almost all but the most hardy archeological sites which may have been present in these areas.

Finally, it is clear that modern, contemporary, urban development has had considerable adverse impact on any sites in the area. Previously reported sites were located in situations the geomorphological analysis identified as amenable to site location but these have been severely impacted by urban development, particularly the construction of Interstate 440.

It is our judgment that these are the factors responsible for the findings from this investigation.

RECOMMENDATIONS

It is our best judgment that further archeological investigations designed to locate sites within the project area would not yield positive results. It is also our judgment that neither of the sites located during this effort are eligible for nomination to the National Register of Historic Places. Therefore no further archeological investigations are recommended for the project area.

In her comments on the draft version of this report Ms. Hester Davis, Arkansas State Archeologist, indicated concurrence with the recommendations that no additional site location efforts be undertaken and that site 3PU290 was not eligible for inclusion on the National Register of Historic Places. Ms. Davis did not agree with the judgment that site 3PU291 was also not eligible for inclusion on the National Register of Historic Places.

Ms. Davis asked that documentary research be conducted in an attempt to determine if information was available about the time and nature of occupation at 3PU291 and that a metal detector survey be conducted at the site.

We agree with the State Archeologist that documentary research is appropriate and such documentary research was conducted at the time of our site examinations. The available real estate and tax records in the Pulaski County Courthouse were examined for this location with negative results. No record of any structures or facilities were discovered for this property. This negative finding was largely responsible for our conjecture that this may have been some sort of tenant facility.

We respectfully disagree that a metal detector survey should be conducted at 3PU291. At the time of investigation ground surface visibility was between 75% and 100% over most of the area. The limits of the artifact scatter were clearly definable. Any soil staining or anomaly would have been visible. Further, shovel testing at 10 m intervals revealed a consistent soil situation with no indications of subsurface features. Artifacts were restricted to the plow zone. In our judgment further investigations such as a metal detector survey should be conducted only if there is some reasonable anticipation of encountering features it could detect and which would change our judgment regarding the site's significance. We are not aware of any precedent for requiring such investigations at similar sites.

However, as an extra effort to avoid any possible loss of significant information the Little Rock District will arrange for an archeologist to monitor the site during construction. Should subsurface features be encountered, construction would be halted until their significance can be determined.

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